

REPLY

To: Examiner of the Patent Office

1. Identification of the International Application

PCT/JP03/16211

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4. Date of Notification: 03.08.2004

5. Contents of Reply

According to PCT written opinion (first) sent on August, 3 2004, claims 1 through 6 have novelty and industrial applicability, but do not involve inventive steps.

The lack of inventive steps is explained in document and explanation.

The applicant amend claims and argues against the written opinion.

i) Claims 1 and 2 have been cancelled, because they have been judged as being lack of inventive steps.

ii) Claim 3 has been amended to include limitation of the step portion as: "the step portion is formed ... to form a right angle between the step portion and the base end side portion." Such a structure is shown in Figure 7 as filed and should not be interpreted as adding a new matter.

With such a structure, when drilling is performed and the core drill A is pulled up from the drilled hole, the exposed step portion 7 scrapes up the chips toward the base end of the core body 1 to a greater degree, as described on page 11 line 25 to page 12 lines 1 to 3.

On the other hand, cited prior arts (documents 1 to 5) fail to disclose or suggest the above mentioned structure. In addition, they fail to disclose a structure which produces similar function and effects.

Document 3 discloses a cutting blade which is expanded slightly radially, but such a structure is intended to ensure a space on a base end side during drilling. The rounded portion having a small curvature cannot scrape up chips resulting from cutting.

The invention defined in amended claim 3 is intended to scrape up the chips when drilling is performed and the core drill is pulled up from the hole. Document 3 or other documents fail to disclose such a structure. In addition these documents fail to suggest the structure for scraping up the chips.

Therefore, the invention defined in amended claim 3 is not derived from the documents 1 through 5. Amended claim 3 is believed to have inventive step.

iii) Claim 4 has been amended to include amended claim 3. Claim 4, which recites limitations of amended claim 3, is believed to have inventive step.

iv) Claim 6 has been amended to depend from claim 4 or 5. Claim 6, which recites limitations of amended claim 4 or 5, is believed to have inventive step.